

Pat SP
Rm RLS
Foster SP

MONITOR WELL PRE-SPUD PROPOSAL

- 1) WELL NAME/NUMBER: BLM-14

- 2) PROPOSED LOCATION: (a) General (on or off-site) Off-site
(attach map Site Area BLM Land)
(b) Sect 34 Twnshp 20S Rng 3E NW ¼ SW ¼ SE ¼ SW ¼

- 3) WELL PARAMETERS:
(a) Est. total depth 325 (ft) (b) Est. ground elevation @4685 ft
(c) Anticipated stratigraphy:
Alluvium (Santa Fe Group) from 0 ' to 240 ' (depth)
Oregon Andesite from 240 ' to TD ' (depth)
(d) Anticipated water bearing horizon(s):
Oregon Andesite at 310 ' (depth)
at _____ ' (depth)
(e) Anticipated static water level 250 ' (depth)

- 4) WELL PURPOSE/JUSTIFICATION (attach maps and table if needed):
Monitor well to determine contaminant levels within known contamination plume boundary.

- 5) PROPOSED DRILLING PARAMETERS:
(a) Drilling method(s): (air/foam/mud rotary/auger/etc.)
Mud Rotary from 0 ' to 100 ' (depth)
Air Foam Rotary from 100 ' to TD ' (depth)

Air-foam method: "Quik-Foam" surfactant/water mixture used in conjunction with filtered compress air.

Mud-rotary method: Bentonite mud/water mixture.

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(b) Lithology sampling - collect sample every:

5' intervals Method Grab from 0 to TD (depth)
Core type 6" Dennison from _____ to _____ (depth)
2" Christiansen from _____ to _____ (depth)

(c) Anticipated drilling additive(s): E-Z mud

7) PROPOSED WELL COMPLETION DESIGN/MATERIALS

(a) Casing:	<u>Material</u>	<u>Diameter</u>	<u>From</u>	<u>To</u>	<u>Comments</u>
Temporary	_____	_____	_____	_____	
Surface	_____	<u>10"</u>	<u>0</u>	<u>100' max</u>	
Screen (10')	<u>Stainless ++</u>	<u>4"</u>	<u>To be determined</u>	<u>from Geophysical</u>	<u>0.02"</u>
			<u>logs</u>		
Completion Pipe	<u>stainless +</u>	<u>4"</u>	<u>0</u>	<u>20' above</u>	<u>*</u>
				<u>water level</u>	
	<u>PVC-Sch 40**</u>	<u>4"</u>	<u>0</u>	<u>" "</u>	<u>**</u>

Standard material: Blank riser, silt trap, locking cap

N/A Data not available at this time

* for deep completions (450 feet or more)

** for shallow completions

+ Type 304, Schedule 5 stainless steel

Type 304, Schedule 10 stainless steel

++ Regular strength screen, extra strength screen used below 450 feet

(b) Filter pack: Standard 8/20 and 16/40 sand and bentonite plug(s), grout to surface.

8) PROPOSED WELL DEVELOPMENT

(a) Surge and bail with surge block and bailer.

(b) Pump with submersible pump until parameters stabilize.

9) WELL AUTHORIZATION

(a) Proposed by Geoscience Consultants, Ltd.

(b) Authorized Robert Mitchell NASA



